

2.14 Animal Species

2.14.1 Regulatory Setting

Many state and federal laws regulate impacts to wildlife. The U.S. Fish and Wildlife Service (USFWS), the National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NOAA Fisheries Service), and the California Department of Fish and Wildlife (CDFW) are responsible for implementing these laws. This section discusses potential impacts and permit requirements associated with animals not listed or proposed for listing under the federal or state Endangered Species Act. Species listed or proposed for listing as threatened or endangered are discussed in Section 2.15, Threatened and Endangered Species. All other special-status animal species are discussed here, including CDFW fully protected species and species of special concern, and USFWS or NOAA Fisheries Service candidate species.

Federal laws and regulations relevant to wildlife include the following:

- Federal Endangered Species Act
- National Environmental Policy Act
- Migratory Bird Treaty Act
- Fish and Wildlife Coordination Act

State laws and regulations relevant to wildlife include the following:

- California Endangered Species Act
- California Environmental Quality Act
- Sections 1600–1603 of the California Fish and Game Code
- Sections 4150 and 4152 of the California Fish and Game Code

2.14.2 Affected Environment

The information in this section is based on the *Natural Environment Study* (NES) (February 2018) and the *Supplemental NES* (September 2018) prepared for the proposed project.

2.14.2.1 Literature Review, Records Search, and Field Visits

A literature review and records search were conducted to identify the presence or potential occurrence of sensitive or special-status animal species within or in the vicinity of the Biological Study Area (BSA). A species list was obtained from the USFWS Information Planning and Conservation System in November 2017, and is provided in Appendix A of the NES (2018). The following 52 special-status animal

species that are not federally- and/or State-listed as endangered or threatened (non-listed) were identified in the literature and records searches as potentially occurring in or near the BSA:

- Crotch bumble bee (*Bombus crotchii*)
- Arroyo chub (*Gila orcutti*)
- Western spadefoot (*Spea hammondi*)
- Coast Range newt (*Taricha torosa*)
- Southern California legless lizard (*Anniella stebbinsi*)
- California glossy snake (*Arizona elegans occidentalis*)
- Orange-throated whiptail (*Aspidoscelis hyperythra*)
- Coastal whiptail (*Aspidoscelis tigris stejnegeri*)
- San Diego banded gecko (*Coleonyx variegatus abbotti*)
- Red-diamond rattlesnake (*Crotalus ruber*)
- San Diego ringneck snake (*Diadophis punctatus similis*)
- Western pond turtle (*Emys marmorata*)
- California mountain kingsnake (*Lampropeltis zonata*) (*pulchra*)
- Coast horned lizard (*Phrynosoma blainvillii*)
- Coast patch-nosed snake (*salvadora hexalepis virgultea*)
- Two-striped gartersnake (*Thamnophis hammondi*)
- Southcoast gartersnake (*Thamnophis sirtalis* ssp.)
- Cooper's hawk (*Accipiter cooperii*)
- Rufous-crowned sparrow (*Aimophila ruficeps*)
- Golden eagle (*Aquila chrysaetos*)
- Great egret (*Ardea alba*)
- Great blue heron (*Ardea Herodias*)
- Bell's sparrow (*Artemisiospiza belli belli*)
- Long eared owl (*Asio otus*)
- Oak titmouse (*baeolophus inornatus*)
- Costa's hummingbird (*Calypte cosae*)
- Coastal cactus wren (*Campylorhynchus brunneicapillus sandiegensis*)
- Lawrence's goldfinch (*Carduelis lawrencei*)
- Snowy egret (*Egretta thula*)
- White-tailed kite (*Elanus leucurus*)
- Merlin (*Falco columbarius*)
- American peregrine falcon (*Falco peregrinus anatum*)

- Yellow-breasted chat (*Icteria virens*) (nesting)
- Loggerhead shrike (*Lanius ludovicianus*)
- Black-crowned night-heron (*Nycticorax nycticorax*)
- Oregon vesper sparrow (*Pooecetes gramineus affinis*)
- Yellow warbler (*Setophagia petevhia*)
- Pallid bat (*Antrozous pallidus*)
- Ringtail (*Bassariscus astutus*)
- Dulzura pocket mouse (*Chaetodipus californicus femoralis*)
- Northwestern San Diego pocket mouse (*Chaetodipus fallax fallax*)
- Dulzura kangaroo rat (*Dipodomys simulans*)
- Western mastiff bat (*Eumops perotis californicus*)
- Western red bat (*Lasiurus blossevillii*)
- Hoary bat (*Lasiurus cinereus*)
- Western yellow bat (*Lasiurus xanthinus*)
- San Diego black-tailed jackrabbit (*Lepus californicus bennetti*)
- Yuma myotis (*Myotis yumanensis*)
- San Diego desert woodrat (*Neotoma lepida intermedia*)
- Pocketed free-tailed bat (*Nyctinomops femorosaccus*)
- Southern grasshopper mouse (*Onychomys torridus ramona*)
- American badger (*Taxidea taxus*)

A reconnaissance-level field survey was conducted on May 26, 2017, to characterize the general biological resources and to ascertain the presence or absence of special-status animal species and the likelihood of their occurrence in or near the BSA. Thirteen of the non-listed special-status animal species identified as potentially occurring in the BSA were observed during wildlife surveys conducted in 2017 and are discussed below. Additionally, non-listed special-status animal species with a moderate or high potential to occur in the BSA are discussed below.

A habitat suitability assessment for bats was conducted on May 30, 2017, and a nighttime survey was conducted on the evening of June 8, 2017, to ascertain the potential for bat foraging and roosting activity within the BSA. Potential roosting sites were identified through the examination of bridges and culvert structures for suitable crevices and roosting habitat. Large trees suitable for foliage-roosting species were noted, but roosting activity at these locations could not be confirmed due to the nature of this roosting behavior. Potential foraging habitat was assessed within and immediately adjacent to the structures based on vegetation composition, presence of

water, connectivity to other areas providing suitable foraging or roosting habitat, and accessibility. Large trees in the project footprint that are suitable for foliage-roosting species were noted during the assessment, but roosting activity at these locations could not be confirmed due to the nature of this roosting behavior. One special-status bat species, Yuma myotis, was observed or otherwise detected in the BSA during the bat assessment.

Wildlife species identified in the BSA are characteristic of those found in undeveloped areas in Southern California (a complete list of species observed is provided in Appendix B of the NES).

2.14.2.2 Ringtail

Ringtail is a CDFW-designated fully protected mammal species in the raccoon family, and a nocturnal omnivore that is native to arid regions of North America. Ringtail can be found nesting in hollow trees in rocky, desert habitat, or in rocky habitat associated with water. Ringtails den from May to July, with young potentially remaining in the den through August. Ringtail has a moderate potential to occur within the BSA due to suitable habitat; however, it was not observed within the BSA during wildlife surveys conducted in 2017.

2.14.2.3 Special-Status Riparian and Aquatic Animal Species

Special-status riparian and aquatic animal species with the potential to occur in the BSA include oak titmouse, great blue heron, arroyo chub, western pond turtle, two-striped gartersnake, California mountain kingsnake, yellow warbler, yellow-breasted chat, and California glossy snake. Suitable habitat is present for the following species and they were observed within the BSA during the wildlife surveys conducted in 2017: two-striped gartersnake, oak titmouse, yellow warbler, great blue heron (observed foraging), and arroyo chub. Although not observed during the wildlife surveys conducted in 2017, because suitable habitat is present within the BSA, there is a high probability of California glossy snake occurring within the BSA and a moderate probability of western pond turtle, California mountain kingsnake, and yellow-breasted chat occurring within the BSA.

2.14.2.4 Special-Status Grassland and Open Habitat Animal Species

Special-status grassland and open habitat species with the potential to occur in the BSA include white-tailed kite, coast horned lizard, peregrine falcon, crotch bumble bee, western spadefoot toad, merlin, and Dulzura kangaroo rat. None of these species was observed during the wildlife surveys conducted in 2017; however, because

suitable habitat is present within the BSA, all except for the peregrine falcon have a high probability of occurrence within the BSA. Peregrine falcon has a moderate potential to occur within the BSA.

2.14.2.5 Special-Status Coastal Sage Scrub and Chaparral Animal Species

Special-status coastal sage scrub (CSS) and chaparral species with the potential to occur in the BSA include coast range newt, San Diego banded gecko, southern California legless lizard, San Diego ringneck snake, coast patch-nosed snake, coastal whiptail, orange-throated whiptail, red-diamond rattlesnake, Costa's hummingbird, coastal cactus wren, Cooper's hawk, rufous-crowned sparrow, Lawrence's goldfinch, San Diego desert woodrat, Dulzura pocket mouse, and northwestern San Diego pocket mouse. Orange-throated whiptail, red-diamond rattlesnake, Cooper's hawk, rufous-crowned sparrow, Costa's hummingbird, coastal cactus wren, and Lawrence's goldfinch were observed during the wildlife surveys conducted in 2017. Although not observed, the remaining eight special-status species have a high potential of occurring within the BSA due to the presence of suitable habitat.

2.14.2.6 Special-Status Bridge/Culvert and Crevice-Dwelling Animal Species

Based on literature review, records search, and field surveys, suitable roosting habitat is present within the BSA for the following five special-status bridge/culvert and crevice-dwelling animal species that are not federally and/or State-listed as endangered or threatened:

- Yuma myotis (*Myotis yumanensis*)
- Pallid bat (*Antrozous pallidus*)
- Western red bat (*Lasiurus blossevillii*)
- Hoary bat (*Lasiurus cinereus*)
- Western yellow bat (*Lasiurus xanthinus*)

Most of the culverts within the BSA are small pipe culverts beneath the roadway, and are not suitable for use by roosting bats. Some of the mature trees in the BSA may provide roosting habitat for special-status foliage-roosting bat species such as western red bat, western yellow bat, and hoary bat. High-quality foraging habitat for bats is also present throughout the riparian and scrub vegetation within the BSA, increasing the desirability of any suitable bridge and culvert structures for use by roosting bats.

Two structures within the BSA were identified as containing suitable bat-roosting habitat.

No bats were observed exiting or entering the Hot Springs Canyon Bridge during the emergence period; however, western small-footed myotis (*Myotis ciliolabrum*) and California myotis (*Myotis californicus*) were detected almost immediately after sunset, indicating that these species likely day roost very close to the bridge. Analysis of echolocation call sequences collected during the nighttime survey and recorded while the detector was left overnight indicates that at least four bat species were present at the bridge on the evening of the survey, including Yuma myotis, California myotis, western small-footed myotis, and big brown bat (*Eptesicus fuscus*). Echolocation call sequences potentially belonging to pallid bat may also have been recorded; however, these sequences could not be conclusively identified as belonging to that species.

No bats were observed night roosting within the Cold Springs Canyon box culvert during the nighttime survey. Analysis of echolocation call sequences collected at the Cold Springs Canyon box culvert during the nighttime survey indicates Yuma myotis activity in the immediate vicinity of this structure. It is likely that this species night roosts within the culvert, which is consistent with the size of the scattered guano observed within this structure.

It is likely that bats are somewhat dispersed throughout the open space areas surrounding the BSA for roosting and foraging, and that bat foraging activity may vary within the BSA with some night roosting periodically occurring. However, it should be noted that because the surveys were focused only on two structures containing bat-roosting habitat, the number of bat species detected during this single nighttime survey may not reflect all bat species present within the BSA.

Day- and night-roosting habitat for bats is present in the bridge interior (accessed via the longitudinal crevice and weep holes) at the Hot Springs Canyon Bridge. Guano and staining indicating roosting by bats was observed at and beneath these areas of the bridge; however, no bats were observed emerging from any of these areas during the nighttime emergence surveys, and there is no evidence that day-roosting bats (including maternity colonies) currently use the Hot Springs Canyon Bridge. Although no day-roosting bats were observed, it is very likely that bats use this structure for night roosting.

2.14.3 Environmental Consequences

2.14.3.1 Temporary Impacts

Build Alternative (Preferred Alternative)

Ringtail

Due to ringtail's preference for nesting in hollow trees or in rocky habitat associated with water, tree trimming or tree removal proposed under the Build Alternative could result in direct impacts to ringtail. The Build Alternative may also result in indirect temporary impacts to ringtail associated with construction activities (e.g., increased dust, noise, vibration, and lighting). With implementation of Measures BIO-1 through BIO-3, and BIO-6 through BIO-8 provided in Section 2.11, Natural Communities, and Measure BIO-11 described below, construction of the Build Alternative would not result in any adverse temporary impacts to ringtail.

Special-Status Riparian and Aquatic Animal Species

Construction of the Build Alternative may result in direct temporary impacts to aquatic species due to the drainage work proposed in San Juan Creek and associated riparian habitats. Construction of the Build Alternative may also result in indirect temporary impacts to special-status riparian and aquatic animal species from increased dust, noise, vibration, lighting, erosion, and potential fuel spills from construction equipment. With implementation of Measures BIO-1 and BIO-2 provided in Section 2.11, Measure BIO-10 provided in Section 2.13, and Measure BIO-17 provided below, construction of the Build Alternative is not expected to result in adverse temporary impacts to special-status riparian and aquatic animal species that have the potential to occur within the BSA.

Special-Status Grassland and Open Habitat Animal Species

Construction of the Build Alternative may result in direct temporary impacts to grassland and open habitat species due to work proposed in such habitats within the BSA. Construction of the Build Alternative may also result in indirect temporary impacts to special-status grassland and open habitat animal species from increased dust, noise, vibration, lighting, erosion, and potential fuel spills from construction equipment. With implementation of Measures BIO-1 and BIO-2 provided in Section 2.11, construction of the Build Alternative is not expected to result in adverse temporary impacts to special-status grassland and open habitat animal species that have the potential to occur within the BSA.

Special-Status Coastal Sage Scrub and Chaparral Animal Species

Construction of the Build Alternative may result in direct temporary impacts to CSS and chaparral species due to work proposed in such habitats within the BSA.

Construction of the Build Alternative may also result in indirect temporary impacts to special-status CSS and chaparral animal species from increased dust, noise, vibration, lighting, erosion, and potential fuel spills from construction equipment. With implementation of Measures BIO-1 and BIO-2 provided in Section 2.11, and Measure BIO-10 provided in Section 2.13, construction of the Build Alternative is not expected to result in any temporary adverse impacts to special-status CSS and chaparral animal species that have the potential to occur within the BSA.

Special-Status Bridge/Culvert and Crevice-Dwelling Animal Species

No temporary direct impacts to the Hot Springs Canyon Bridge are proposed as part of the Build Alternative; therefore, no direct adverse effects to the bat-roosting habitat in this bridge are anticipated during construction of the Build Alternative.

Night-roosting habitat is present at the Cold Springs Canyon concrete box culvert, which would be subject to direct impacts (repair or replacement) as part of the Build Alternative. Although no night-roosting bats were directly observed at the Cold Springs Canyon culvert during the nighttime survey, due to the presence of guano within the culvert and the high-quality foraging habitat adjacent to the culvert, bats are expected to night roost within this structure and could be subject to direct effects during construction.

Potential temporary indirect impacts to bat species include lighting, noise, and vibration generated by project construction activities in proximity to roost sites.

Given that there is no evidence of day-roosting bats or maternity colonies roosting in any of the bridge or culvert structures examined during the assessment, standard measures to minimize impacts to day-roosting bats such as humane eviction/exclusions of bats or provision of alternate roosting habitat are not recommended at this time. With implementation of Measures BIO-12 through BIO-14 provided below, construction of the Build Alternative is not expected to result in any temporary adverse impacts to bat species that have the potential to occur within the BSA.

No Build Alternative

The No Build Alternative would not include construction of any of the proposed project improvements and thus would not result in the removal of any structures, trees/vegetation, or result in the generation of any dust, noise, vibration, or erosion.

Therefore, the No Build Alternative would not result in temporary impacts to special-status animal species in the BSA.

2.14.3.2 Permanent Impacts

Build Alternative (Preferred Alternative)

Ringtail

The Build Alternative is not expected to result in direct or indirect permanent impacts to ringtail with implementation of Measures BIO-1 through BIO-3, and BIO-6 through BIO-9 provided in Section 2.11, Natural Communities. Additionally, with implementation of Measure BIO-12 provided below, construction of the Build Alternative is not expected to result in permanent adverse impacts to ringtail within the BSA.

Special-Status Riparian and Aquatic Animal Species

Construction of the Build Alternative has the potential to directly impact special-status riparian and aquatic animal species due to the drainage work proposed in San Juan Creek and associated riparian habitats. Direct permanent impacts may include mortality from ground disturbance associated with construction activities or habitat modifications. With implementation of Measures BIO-1 and BIO-2 provided in Section 2.11, and Measure BIO-10 provided in Section 2.13 impacts to special-status riparian and aquatic animal species would be avoided to the greatest extent feasible. No mitigation is proposed for this effect but mitigation identified for riparian communities, as specified in Measure BIO-5 in Section 2.11, would benefit special-status riparian and aquatic animal species.

Special-Status Grassland and Open Habitat Animal Species

The Build Alternative has the potential to directly impact special-status grassland and open habitat animal species due to work proposed within these habitats within the BSA. Direct impacts may include mortality from ground disturbance associated with construction activities or habitat modifications. With implementation of Measures BIO-1 and BIO-2 provided in Section 2.11, construction of the Build Alternative is not expected to result in permanent adverse impacts to special-status grassland and open habitat species that have the potential to occur within the BSA.

Special-Status Coastal Sage Scrub and Chaparral Animal Species

The Build Alternative has the potential to directly impact special-status CSS and chaparral animal species due to work proposed within these habitats within the BSA. Direct impacts may include mortality from ground disturbance associated with

construction activities or habitat modifications. With implementation of Measures BIO-1 and BIO-2 provided in Section 2.11 and Measure BIO-10 provided in Section 2.13, construction of the Build Alternative is not expected to result in permanent adverse impacts to special-status CSS and chaparral animal species that have the potential to occur within the BSA.

Special-Status Bridge/Culvert and Crevice-Dwelling Animal Species

Potential direct permanent impacts of the Build Alternative on bats include loss of roosting sites, particularly with regard to the removal of existing trees and improvements to the Cold Springs Canyon concrete box culvert, or even direct mortality during destruction or disturbance of a roost site. With implementation of Measures BIO-12 through BIO-17 provided below, construction of the Build Alternative is not expected to result in permanent adverse impacts to special-status bat species and bat colonies that have the potential to occur within the BSA.

No Build Alternative

The No Build Alternative would not include construction of any of the proposed project improvements. Permanent effects on these species within the BSA associated with the existing operation of SR-74 would continue under the No Build Alternative. Therefore, the No Build Alternative would not result in any new permanent impacts to special-status animal species in the BSA.

2.14.4 Avoidance, Minimization, and/or Mitigation Measures

In addition to Measures BIO-1 through BIO-3, and BIO-6 through BIO-9 provided in Section 2.11, the following measure would avoid and/or minimize potential impacts to ringtail during construction of the Build Alternative.

BIO-11 Nesting Ringtail Exclusionary Buffers. Tree trimming or tree removal shall be avoided during the bird nesting season (February 15–August 31), to provide full avoidance of the ringtail denning season. In the event that vegetation clearing is necessary during the ringtail’s denning season, a qualified biologist will conduct a pre-construction survey to identify potential locations of dens. Should nesting ringtails be found, an exclusionary buffer will be established by the qualified biologist. This buffer will be clearly marked in the field by construction personnel under the guidance of the qualified biologist, and construction or clearing shall not be conducted within this zone until the qualified biologist determines that the den is no longer active.

The following measures would avoid and/or minimize potential impacts to bats foraging and night roosting in and around the Cold Springs Canyon concrete box culvert during construction of the Build Alternative:

- BIO-12 Replace Impacted Night-Roosting Bat Habitat.** If the Cold Springs Canyon culvert is replaced rather than simply repaired, the replacement culvert shall have similar features as the original, suitable for use by night-roosting bats.
- BIO-13 Night Lighting During Construction.** During nighttime work for project construction, night lighting shall be used only in the area actively being worked on and focused on the direct area of work.
- BIO-14 Access to Roost Features.** Airspace access to and from the roost features of the structure shall not be obstructed except in direct work areas.

The following measures would avoid and/or minimize potential impacts to special-status tree-roosting bats during construction of the Build Alternative:

- BIO-15 Minimize Tree Removal.** The removal of mature trees and snags should be minimized to the greatest extent practicable.
- BIO-16 Avoidance of Tree Trimming/Removal During Bat Maternity Season.** If trimming or removal of mature trees and snags is necessary for project construction, tree trimming/removal activities will be performed outside of the bat maternity season, which occurs from April 1 through August 31, to avoid direct impacts to non-volant (flightless) young that may roost in trees within the study area, to the extent feasible. This period also coincides with the bird nesting season (typically February 15–August 31).
- BIO-17 Pre-Construction Survey and Monitoring by a Qualified Bat Biologist.** If trimming or removal of trees during the bat maternity season (April 1–August 31) cannot be avoided, a qualified Biologist will monitor tree removal unless nighttime surveys conducted within 1 week of removal indicate no tree-roosting bat activity within the study area.

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